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Kudou et al.

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(54) **SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(57) **ABSTRACT**

A semiconductor device includes: semiconductor layer having an impurity region of a first conductivity type; a gate insulating layer, at least a part of the gate insulating layer positioned on the semiconductor layer; a gate electrode positioned on the gate insulating layer and having a first surface in contact with the part of the gate insulating film and a second surface opposite to the first surface; an interlayer insulating layer covering the gate electrode; and an electrode in contact with the impurity region. The gate electrode has a recess at a corner in contact with the second surface, in a cross section of the gate electrode perpendicular to a surface of the semiconductor layer. A cavity surrounded by the gate electrode and the interlayer insulating layer is positioned in a region including at least a part of the recess.

5 Claims, 10 Drawing Sheets

